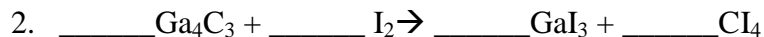
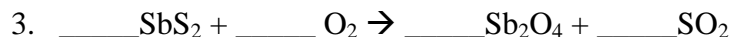


Stoichiometry Practice 1

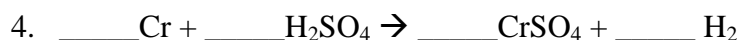
Balance the Equation:



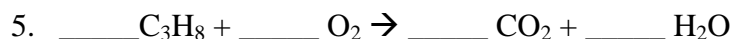
Balance each equation & solve the problem (Show work)



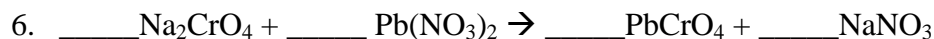
When 5.00 grams of SbS_2 reacts, what mass of Sb_2O_4 can form?



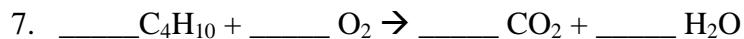
If 0.52 g of Cr dissolves in H_2SO_4 , how many moles of H_2 gas forms?



To burn 20.0 g of C_3H_8 , _____ grams of O_2 gas are needed.



If 4.00 grams of Na_2CrO_4 are to react completely, what mass of $\text{Pb}(\text{NO}_3)_2$ must be added?



To burn 580 g of C_4H_{10} , how many grams of O_2 gas are needed?

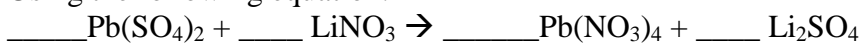
8. Lithium hydroxide reacts with hydrobromic acid to produce lithium bromide and water. If you start with ten grams of lithium hydroxide, how many grams of lithium bromide will be produced?

9. Ethylene (C_2H_4) reacts with oxygen gas to produce carbon dioxide and water. If you start with 45 grams of ethylene, how many grams of carbon dioxide will be produced?



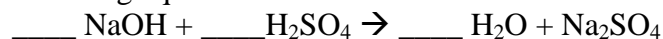
If you start with 20 grams of hydrochloric acid, how many grams of sulfuric acid will be produced?

11. Using the following equation:



How many grams of lithium nitrate will be needed to make 250 grams of lithium sulfate, assuming that you have an adequate amount of lead (IV) sulfate to do the reaction?

12. Using the following equation:



How many grams of sodium sulfate will be formed if you start with 200 grams of sodium hydroxide and you have an excess of sulfuric acid?

13. Given the reaction: $\text{NaCl} + \text{CaO} \rightarrow \text{CaCl}_2 + \text{Na}_2\text{O}$

What is my theoretical yield of sodium oxide if I start with 20 grams of calcium oxide?

14. Given the following equation: $\text{LiOH} + \text{KCl} \rightarrow \text{LiCl} + \text{KOH}$

- I began this reaction with 20 grams of lithium hydroxide. What is my theoretical yield of lithium chloride?
- I actually produced 6 grams of lithium chloride. What is my percent yield? (See page 238 in text)

15. Given the following equation: $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$

- If I start with 5 grams of C_3H_8 , what is my theoretical yield of water?
- I got a percent yield of 75%. How many grams of water did I make?

16. $\text{FeBr}_2 + \text{KCl} \rightarrow \text{FeCl}_2 + \text{KBr}$

- What is my theoretical yield of iron (II) chloride if I start with 34 grams of iron (II) bromide?
- What is my percent yield of iron (II) chloride if my actual yield is 4 grams?

17. $\text{U} + \text{Br}_2 \rightarrow \text{UBr}_6$

What is my actual yield of uranium hexabromide if I start with 100 grams of uranium and 250 grams of bromine, and get a percent yield of 83% ?

18. $\text{TiS} + \text{H}_2\text{O} \rightarrow \text{H}_2\text{S} + \text{TiO}$

What is my percent yield of titanium (II) oxide if I start with 20 grams of titanium (II) sulfide and my actual yield of titanium (II) oxide is 22 grams?